

Amendments to the Claims

Claims 1-14 (Cancelled).

15. (Currently amended) A plasma etching process comprising:

- forming a masking layer over a substrate;
- patterning the masking layer to form openings therein;
- first etching material beneath the masking layer through the openings, the first etching extending the openings to outwardly expose a conductive silicon-comprising material at a base of the openings;
- after the first etching, removing the masking layer from the substrate; and
- after the removing and before subsequently depositing any material over the substrate, utilizing an oxygen-comprising plasma to remove a residue from the outwardly exposed conductive silicon-comprising material, the plasma being generated from a gas having active components consisting of one or more members of the group consisting of O₂, O₃, H₂ and NH₃.

16. (Previously presented) The plasma etching process of claim 15 wherein the plasma comprises O₃.

17. (Original) The plasma etching process of claim 15 wherein the plasma comprises hydrogen.

18. (Original) The plasma etching process of claim 17 wherein the hydrogen containing plasma is derived at least in part from H_2 .

19. (Original) The plasma etching process of claim 17 wherein the hydrogen containing plasma is derived at least in part from NH_3 .

20. (Original) The plasma etching process of claim 15 wherein the plasma is predominately comprised of hydrogen.

21. (Original) The plasma etching process of claim 15 wherein the temperature is at least $600^{\circ}C$.

22. (Previously presented) The plasma etching process of claim 15 wherein the residue is formed at least partially over the substrate during the first etching.

23. (Previously presented) The plasma etching process of claim 15 comprising after the removing and before subsequently depositing any material over the substrate, conducting at least two plasma etchings using different reactive gas chemistries, one of the at least two plasma etchings being said plasma etching utilizing an oxygen-comprising plasma, another of the at least two plasma etchings being subsequent to the one and using a gas chemistry comprising chlorine.

24. (Original) The plasma etching process of claim 23 wherein the another plasma etching is conducted at a temperature of at least $400^{\circ}C$.

Claims 25-34 (Cancelled).

35. (Currently amended) A plasma etching process comprising:
forming a photoresist layer over a semiconductor substrate;
patterning the photoresist layer to form openings therethrough;
dry etching a BPSG layer immediately beneath the photoresist layer through the openings, the dry etching extending the openings to expose a monocrystalline silicon substrate material at a base surface of the openings and forming a carbon containing polymer residue at least partially over the monocrystalline silicon substrate material at the base of the openings during the dry etching;
after the dry etching, removing the photoresist layer from the substrate; and
after the removing and before subsequently depositing any material over the substrate, plasma etching the carbon containing polymer residue from the monocrystalline silicon ~~silicon comprising~~ substrate material substantially selectively relative to the BPSG layer and relative to the monocrystalline silicon ~~silicon comprising~~ substrate material, the plasma etching utilizing a plasma generated from a gas having active components consisting of one or more members of the group consisting of O₂, O₃, H₂ and NH₃.

36. (Original) The plasma etching process of claim 35 wherein the plasma etching is conducted at a temperature of at least 400°C.

37. (Original) The plasma etching process of claim 35 wherein the plasma etching is conducted at a temperature of at least 600°C.

38. (Original) The plasma etching process of claim 35 wherein the plasma comprises oxygen.

39. (Original) The plasma etching process of claim 35 wherein the plasma comprises hydrogen.

40. (Original) The plasma etching process of claim 39 wherein the plasma is derived at least in part from H_2 .

41. (Original) The plasma etching process of claim 39 wherein the plasma is derived at least in part from NH_3 .

Claims 42-60 (Cancelled).